

1875

OCT 27 1902

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ACADEMY OF NATURAL SCIENCES

OF

PHILADELPHIA.

ANNUAL REPORTS.

✓ 1875.

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The following reports were read and referred to the Publication Committee:—

REPORT OF RECORDING SECRETARY.

The Recording Secretary respectfully reports that during the year ending November 30th, 1875, forty-two members and eleven correspondents have been elected.

Four members have resigned.

The following members have died: Rev. Henry S. Spackman, Dr. G. W. Norris, Dr. A. A. Henderson, U. S. N., Dr. R. Bannan, U. S. N., and William E. Whitman. The deaths of Sir Charles Lyell and John Edward Gray, correspondents, were also announced.

Twenty-seven papers have been presented for publication as follows: Edw. D. Cope, five; R. Ridgway, three; Elliot Coues, three; Thos. G. Gentry, three; W. G. Binney, two; H. R. Morrison, two; T. A. Conrad, Dr. Jas. Lewis, E. L. Berthoud, Aug. R. Grote, J. A. Ogden, H. C. Chapman, R. E. C. Stearns, B. F. Lautenbach, and O. A. L. Mörch of Copenhagen, each one. Twenty-one of these were ordered to be published in the Proceedings, four in the Journal, one was withdrawn at the request of the author, and one remains yet to be reported upon.

In addition to the above contributions to the Proceedings and Journal, the verbal communications made at the several meetings and published in the Proceedings without being formally referred to committees, have been unusually numerous and important. Those by Dr. Leidy upon the results of his recent microscopical investigations, by Prof. Cope upon the Palæontology of the west and kindred subjects, and by Mr. Thos. Meehan upon vegetable physiology deserve special mention. Interesting verbal communications have also been made by Prof. Frazer, Dr. Chapman, Prof. B. Waterhouse Hawkins, C. Newlin Peirce, Chas. A. Young, Wm. M. Gabb, Geo. Koenig, and Jos. Willcox.

During the year the concluding thirty pages of the Proceedings for 1874 and 427 pages of the current volume have been published, the latter being illustrated by twenty-four lithographic plates and ninety wood-cuts. 187 pages of the Journal have also been issued

before the completion of the illustrative plates as advance copies of Prof. Cope's paper on the Batrachia and Reptilia of Costa Rica.

Abstracts of such parts of the proceedings of the Academy as might be of popular interest have been published from time to time in the daily papers, with the effect, it is believed, of increasing the interest of the community at large in the welfare of the society, as well as causing a more numerous attendance of members at the meetings.

Art II. Chap. II. of the By-laws was amended by striking out the last sentence and substituting the following words: "Persons under sixteen years of age may be elected members provided their nominations be first approved by the Council. Members under the legal age of twenty-one years are not entitled to vote at any meeting of the Academy nor to serve on committees."

On August 31, a resolution was adopted requesting the Council to examine the By-laws and report such changes as may be necessary for the better government of the Academy.

The important events in the history of the Academy during the past year have been the reception of the I. V. Williamson Library Fund more particularly referred to in the Librarian's Report, the sale of the premises at present occupied by the society, the removal of the collections to the new building at the S. W. corner of Nineteenth and Race Streets, and the junction of the American Entomological Society with the Academy as a section thereof.

On February 23, a resolution was adopted referring to the Finance Committee for consideration, a proposition to subscribe the sum of \$50,000 to the building fund of the Academy. On March 30, a report was received from the committee recommending the appropriation of the sum named upon certain conditions, and a resolution was adopted authorizing the Treasurer to make the subscription when a further sum of \$30,000 had been obtained. A resolution was also adopted authorizing a committee appointed at a previous meeting to ascertain the value of the premises at Broad and Sansom Streets, to negotiate the sale of the same. On November 16, this committee reported that the property had been sold for \$60,000 to be paid in cash and securities, amounting together it was believed in net value to \$56,500, and on November 23, the President and Recording Secretary were author-

ized and directed to transfer the property according to legal form to the purchaser, Moro Phillips, Esq.

At the meeting held May 11, a letter was received from the American Entomological Society inquiring on what terms that Society might be allowed to occupy the apartments to be devoted to Entomological purposes in the new building. A committee was appointed to consider the subject in conjunction with a similar committee from the American Entomological Society. At the next meeting of the Academy a report was received and adopted embracing a plan of union by which it was proposed that the American Entomological Society should become a Section of the Academy. On Oct. 19, the Committee presented a plan of union drawn up in legal form, which was referred to the Council for consideration. Certain amendments proposed by the latter body having been accepted by the American Entomological Society, on Nov. 9, the officers of the Academy were directed to ratify the Articles of Agreement. Properly certified copies of these Articles have been accordingly deposited in the archives of both societies.

On November 2, the new building having been so far completed as to be ready for the reception of the collections of the Academy, the President announced that the process of moving had been commenced on that day.

All of which is respectfully submitted.

EDWARD J. NOLAN,
Recording Secretary.

REPORT OF LIBRARIAN.

There were 1940 additions made to the library from January 1 to November 30, 1875; being an excess of 280 for the eleven months named over the number received during the twelve months of the preceding year.

Of these 565 were volumes, 1368 pamphlets and parts of periodicals, and 7 maps, charts, etc.; 1534 were octavos, 300 quartos, 76 folios, and 9 maps.

They were derived from the following sources :—

Societies	525	Geological Survey of India . .	4
Editors	335	War Department	3
I. V. Williamson Fund . . .	269	Jos. Barnett	3
Rathmell Wilson	170	Geological Survey of Penna. .	2
Authors.	137	Geological Survey, Ohio . . .	2
C. F. Parker	113	Publishers	2
Wilson Fund	87	Jos. Jeanes	1
Department of the Interior . .	25	Rev. Jas. Saul	1
Howard Potts	21	Louis Wagner	1
Isaac Lea	13	Jos. Willcox	1
Engineer Department, U. S. A.	11	Edw. D. Cope.	1
Henry Wheatland	9	Geo. W. Tryon, Jr.	1
S. S. Haldeman	7	Minister of Public Works, France	1
Thos. Meehan	7	Treasury Department	1
Regents of University, New York	6	City of Phila	1
Government of India	6		

In addition to the above, 174 were paid for from the general funds of the Academy.

The additions to the library were distributed to the several departments as follows :—

Journals	1364	Physical Science	11
Geology	138	Education	11
General Natural History. . .	84	Voyages and Travels	10
Conchology	84	Bibliography	10
Ornithology	47	Mammalogy	10
Botany	44	Ichthyology	7
Entomology	34	Herpetology	7
Anatomy and Physiology . . .	28	Biography.	6
Mineralogy	28	Chemistry.	3
Helminthology	12	Politics.	2

224 volumes have been bound during the year, and 51 are now in the hands of the binder. For the expenses of binding as well as for the amounts paid for the books from the several funds, you are respectfully referred to the report of the Treasurer of the Academy.

The card catalogues of the works on Geology, Mammalogy, and Ornithology, amounting in the aggregate to 2753 titles exclusive of cross references, have been completed and the system of numbering extended to those departments. This work has been somewhat retarded during the past month by the fear that it would be impossible to preserve exactly the same arrangement of the books on the shelves of the library in the new building. Any disturbance of the order in which the numbered volumes are at present placed will, of course, render necessary some revision

of the catalogue, and it has been thought well to avoid this as far as possible. The numbering and card register will be extended to the remaining sections of the library as rapidly as possible after the rearrangement of the books in the cases provided in the new building has been perfected.

At the meeting of the Academy held February 16, The Treasurer announced the munificent donation by Isaiah V. Williamson, Esq., to the Academy of ground rents to the amount of \$25,000.00 as a permanent fund for the use of the library. It is confidently hoped that the interest on this sum, together with the portion of the interest derived from the legacy of the late Dr. Thos. B. Wilson devoted to the same use, and amounting together to \$1800.00 per annum, will be sufficient, not only to keep the library supplied with the current scientific literature, but also to enable the Library Committee to secure from time to time the many very desirable books of an earlier date which are still wanting in most of the departments. It will be perceived that 269 additions to the library have been already derived from the I. V. Williamson Fund. The most notable of these additions is a complete set of Curtis' Botanical Magazine, which was long most earnestly desired by the society. It may be well said to constitute a comparatively complete botanical library in itself.

A number of answers to the applications for deficiencies sent last year to corresponding societies have been received since my last report, and in many cases the volumes applied for have been sent to the Academy. I have great pleasure in acknowledging the obligations of the society to Mr. Wm. S. Vaux, who, during his recent visit to Europe, lost no opportunity of pressing our wants upon the attention of the officers of such societies as he had an opportunity of visiting. We have received, in consequence, valuable contributions from the Academy of Sciences of Bologna, of Naples, of Bruxelles, and from the Zoological Society of London. I have also been advised of the early sending of a valuable series of volumes of the *Comptes Rendus* of the French Academy, in which the library has been deficient since the death of our benefactor Dr. Thos. B. Wilson, and which, together with parts of the *Annales des Mines*, and other desiderata, have been secured directly through the agency of Mr. Vaux.

The thanks of the Academy are also specially due to Mr. Rathmell Wilson for the liberal donation of 170 volumes from the

library of his brother, the late Dr. Thos. B. Wilson. Some of these were already in the possession of the Academy, but the collection contains many valuable works not before in the library, while most of the duplicates are in better condition than the copies on our shelves.

All of which is respectfully submitted.

EDWARD J. NOLAN, *Librarian*.

REPORT OF THE CURATORS FOR 1875.

The Curators, in presenting their usual annual report, announce the important fact that the new building, erected for the Academy at the corner of 19th and Race Sts., is so far completed as to be ready for the reception of its collections. Indeed, the removal of the Museum from the building we now occupy was commenced on the 2d of November and was completed the last week. It is proposed shortly to commence the removal of the Library, and the Curators anticipate having our new hall ready for the future meetings of the Academy early in January of the coming year. The removal of the Museum was carried on with unexpected rapidity, but with the necessary care, under the able direction and incessant attention of two of my colleagues, Mr. Tryon and Mr. Parker. Indeed, I feel that the Academy is greatly indebted to these two gentlemen for the successful manner in which they have carried out this responsible charge, and I hope that we may be still able to secure their services for the necessary arrangement of the Museum in our new building.

During the last year an unusual amount of labor was carried on in putting the collections of the Museum in the best condition for study.

The ornithological collection, which, from its enormous size, is the most serious charge of the Curators, has suffered in past years a considerable amount of damage from the attacks of insects. Latterly, much attention has been devoted to it, and we hope hereafter to be able to keep it in better condition. During the last year Dr. James A. Ogden, Mr. Russell Hill, and Miss Sarah P. Monks, have been engaged in arranging the collection. In this time they have identified, labelled, and catalogued 6900 specimens of birds, of about 1300 species comprised in 38 families.

The alcoholic specimens generally of the Museum have been looked over by Mr. Parker.

The alcoholic collection of mollusks, myriapods, spiders, etc., comprising about 500 jars, have been arranged and labelled by Mr. Parker.

All the crustaceans, amounting to upwards of 1050 species, have been identified, neatly arranged, labelled and catalogued by Mr. Parker and Mr. Tryon.

The collection of echinoderms has been properly arranged and labelled by the same gentlemen.

All the specimens received during the year have been deposited in their proper places and labelled.

The Botanical Committee, Messrs. Meehan, Burke, and Redfield, and Miss Bodley and Dr. Leffman, have continued their labors in the arrangement of the Herbarium.

The contributions to the Museum during the year are as follows:—

Mammals.—A Giraffe; a Virginia Deer; a Rock Kangaroo, *Petrogale penicillata*; a Porcupine, *Hystrix javanicus*; a young Lion; 2 *Sciurus*; 2 *Pauxi galeata*; *Macacus nemestrinus*; *Cercopithecus sabæus*; and a Sapajou. Presented by the Philadelphia Zoological Society.

A Japanese Dog, from Dr. W. S. W. Ruschenberger; a Howling Monkey, *Myctes*, U. S. of Columbia, from Wm. M. Gabb; a Maryland Marmot, from Dr. Harrison Allen; and a small mammal from Fung Chow, China, from Wm. M. Capp. Eleven human skulls were presented by Dr. William H. Jones, U. S. N.

Birds.—*Crax carunculata*, S. America; Red-breasted Pigeon, *Phlogaenas cruenta*; Philippines; *Casarca variegata*, N. Zealand; and *Porphyrio martinica*. Presented by the Philadelphia Zoological Society.

Fifteen specimens, 9 species, of bird skins, mostly from Guaymas and La Paz, and another collection of 28 bird skins, from the Pacific coast. Presented by Dr. Wm. H. Jones, U. S. N.

A Gray Duck, *Chaulelasmus streperus*, from C. W. Matthews, and an Ostrich egg, from S. C. McClure.

Reptiles, Amphibians, and Fishes.—An Alligator. Presented by the Philadelphia Zoological Society.

Two small bottles with reptiles; three additional species of reptiles, and 33 specimens of 19 species of fishes, from the Pacific

coast of Mexico, from Acapulco to Guaymas and La Paz. Presented by Dr. Wm. H. Jones, U. S. N.

Five species of reptiles, Cold Springs, N. York, and one reptile, from California. Presented by Sarah P. Monks.

A fine specimen of *Ceratodus Forsteri*, from Queensland. Presented by Dr. John Belisario, of Sydney, Australia, through Dr. McQuillen.

A Bottle-headed Dolphin, *Coryphæna Suerii*, caught five miles off the coast of Atlantic City, N. J., Sep. 7, 1875. Presented by W. R. Bucknell.

An Angel Fish, *Squatina Dumerili*, from Lewes, Delaware. Presented by A. Purvis.

Two species of reptiles and four of fishes, from Chester Co. Presented by Dr. H. Allen.

Trichiurus lepturus, from the southeast coast. Presented by John Krider.

Spelerpes bilineata. Presented by Gen. Pleasanton.

Bolesoma olmstedii, Rancocas Creek, N. J. Presented by Col. T. M. Bryan.

Two snakes from Fung Chow, China. Presented by Wm. M. Capp.

Mollusks.—Fifty-one species of marine shells, from the Atlantic coast of Costa Rica; three species, from Aspinwall; three specimens *Ostrea virginica*, from Gulf of Nicoya; and a *Helix* from Genesee Co., N. Y. Presented by William M. Gabb.

Thirty species of shells, from Acapulco, besides three other collections of shells and bryozoans, from Alaska and other localities along the Pacific coast to Mexico. Presented by Dr. Wm. H. Jones, U. S. N.

Seventeen species of land shells from Australia, West Indies, etc., presented by Thomas Bland; and also four additional species, in exchange from the same.

Three cuttle fishes, from China. Presented by Wm. M. Capp.

Twenty-one species of shells, from Florida. Presented by W. W. Calkins.

Eighteen species of shells, from California, presented by Sarah P. Monks; two species *Bulimus* and two of *Thaumastes*, from the Rio Negro and the Amazon, presented by Prof. J. Orton; *Goniobasis potosiensis*, from Missouri, presented by Mrs. Mary P. Harris;

and a small collection of shells, from Bermuda, presented by Mr. Janney.

Articulates.—A case containing a fine collection, mainly of lepidoptera, with a few neuroptera, from the coast ranges at Rockingham Bay, northeast coast of Queensland, Australia. Presented by Dr. John Belisario, of Sydney, N. S. Wales, through Dr. McQuillen.

Many specimens of species of crustaceans, besides *Carpilius maculatus*; two species of barnacles; a small collection of isopods and insects. From various localities of the Pacific coast, and presented by Dr. Wm. H. Jones, U. S. N.

A bottle of insects, from Ooromia, Persia. Presented by a missionary, Rev. G. W. Coan, through Mr. D. D. Willard.

Three vials with insects, from Nebraska. Presented by Lieut. W. L. Carpenter, U. S. A.

Ocypoda rhombea; several spiders and centipeds; several species of ants; and parasites from a monkey, a field-mouse, a hawk, and a beetle, from Old Harbor, Costa Rica. Presented by W. M. Gabb.

Libinia canaliculata, Cape May, N. J., from Rev. R. B. Port; an *Astacus*, Chester Co., from Dr. H. Allen; *Epeira riparia*, Philadelphia, from Miss Withers; a Mole-cricket, California, from Miss Monks; and a wasp's nest, Haddonfield, N. J., from Miss Mary Kirby.

Radiates and Protozoans.—A collection of echinoderms, holothurians, ophiurians, and star-fishes; an actinia, a coral, a gorgonia, and several species of acalephs; from the Pacific coast. Presented by Dr. W. H. Jones, U. S. N.

Five species of corals, one star-fish, and five species of sponges, from Bermuda. Presented by Mr. Janney.

Eleven species of corals and an *Echianthus rosaceus*, from Florida. Presented by W. W. Calkins.

A collection of British sponges: *Grantia compressa*, *Isodictya varians*, *I. infundibuliformis*, *Chilina oculata*, and *Halichondria panicea*. Presented by the Liverpool Free Public Museum.

Two species ophiurans and one other echinoderm, from Aspinwall, and a coral from the coast of Costa Rica. Presented by Wm. M. Gabb.

A fine specimen of *Heterocentrotus mammillatus*, from the Pacific. Presented by J. H. Redfield.

Erechinus chloroticus, New Zealand. Presented by C. F. Parker.

Fossils.—A large collection of tertiary fossils, of St. Domingo, comprising 1340 specimens of mollusks, and 86 specimens of 23 species of corals. Presented by William M. Gabb.

Several collections of fossils from the marl pits near Vincenttown, Pemberton, Ayrestown, and Glassboro, New Jersey, comprising a multitude of specimens of vertebræ, and teeth of sharks of the genera *Lamna*, *Otodus*, *Carcharodon*, *Oxyrhina*, and *Galeocerdo*; also teeth of *Pristis*, *Myliobatis*, and *Enchodus*; the snouts of *Histiophorus* and *Coelorrhynchus*; in addition, fragments of turtle shells, of *Mosasaurus* and other saurian bones, dermal plates, bones and teeth of crocodiles, etc. Specimens also of *Belemnites*, *Ammonites*, *Ostrea*, several gastropods, *Spatangus*, etc. Presented by Col. T. M. Bryan. There were likewise presented by the same gentleman, some fossil fishes, mollusks, and plants, from Colorado.

A small collection of shark teeth and a cetacean rib, from Ashley R., S. C. Presented by S. T. Abert, through Col. Bryan.

A collection of seventy-five fossils, from the vicinity of Lexington, Scott Co., Md., was presented by Dr. W. D. Hutchings.

A collection of forty-four fossils, from California, was presented by Sarah P. Monks.

A collection of teeth and vertebræ of sharks, from Ashley R., S. C., and a collection of post-pliocene fossils, from the coast of Cuba, were presented by Mr. John Ford.

Other small collections and single specimens of fossils were presented by Dr. S. C. De Besy, W. W. Jefferis, J. B. Dillingham, Alfred G. Baker, John M. Hartman, Joseph P. Hazard, C. J. Hardekopf, Joseph Krall and Dr. F. L. Gault.

From the Otago Museum, Dunedin, N. Z., there was received a collection of bones of *Dinornis*, in exchange.

From the Museum of the Jardin des Plantes, Paris, there was also received, in exchange, a collection of casts in plaster, of vertebrate fossils.

Plants.—One hundred and eighty-nine species of plants, collected in the Sierra Nevada, California, by Lemmon, were presented by Messrs. John H. Redfield, John S. Haines, and Thomas Meehan.

A collection of Parry's plants of Wyoming and of Southern Utah of 1873-74 was presented by Wm. H. Dougherty.

A collection of plants, from Guadaloupe Island, off Lower California, was presented by John H. Redfield and Wm. M. Canby.

A collection of plants from Vera Cruz, was presented by Chas. Mohr, of Mobile, Ala.; another from California and Nevada, was presented by Dr. J. W. Metcalf; and one of eleven species of algæ, of California, was presented by Miss Sarah P. Monks.

Single botanical specimens were presented by Dr. Robert Bridges. Botanelly & Co., G. Schrader, J. S. Lippincott, and Dr. J. L. LeConte.

Minerals.—A meteorite, which fell Feb. 12, 1875, near Homestead, Iowa, was presented by C. W. Irish, Iowa City.

A large and magnificent specimen of amethyst, from Thunder Bay, Lake Superior. Presented by W. S. Bissel.

Idocrase, Orange Co., N. Y.; two arkansites, Magnet love, Ark.; martite, Digby Neck, N. Scotia; apatite, Nassau; pyrite, Bannat; and calcite, Cornwall. Presented by C. S. Bement.

A large pebble of limpid quartz, from Siberia. Presented by Joseph Jeanes.

Melanosiderite, chesterlite, jefferisite, and halite, from Chester and Delaware Co's. Presented by W. W. Jefferis.

Native silver and argentite, argentite, and pyrargyrite, Guanaajuata, Mexico. Presented by Dr. A. B. Carothers, Saltillo, M.

A small collection of minerals from Fritz's Island, near Reading, Pa., and a specimen of samarskite, from Mitchell Co., N. C., were presented by Joseph Willcox.

Other minerals were presented as follows:—

Five specimens of cinnabar, St. John's Mine, Solano Co., Cal., and lignite from Alaska, by Dr. Wm. H. Jones; malachite, from Australia, by Dr. J. Belisario; stilbite on gneiss, Frankford, Pa., by John Ford; arkansite on quartz, by Dr. Beadle; several iron ores from York Co., Pa., and Essex Co., N. Y., by John M. Hartman; fossil wood, Cecil Co., Md., by J. Ryder; agate pebbles, Texas, by Lieut. A. C. Mackley; lignite, Costa Rica, by Wm. M. Gabb; peat, New Jersey, by John Cooper; bog ore, Edgmont, Del. Co., by A. B. Mitchell; limonite with impression of recent snake skin, Carroll Co., Va., by Mr. Huey through Dr. James Darrach; opalized wood, Nebraska, by Swarthmore College; and sulphur, California, by Miss Sarah P. Monks.

Miscellaneous.—Tapa cloth, Feejee Is., presented by Dr. John

Belisario; and a collection of bows and arrows, from one of the Pacific Isles, presented by Dr. Wm. H. Jones, U. S. N.

Respectfully submitted by

JOSEPH LEIDY,
Chairman of the Curators.

REPORT OF RECORDER OF BIOLOGICAL AND MICROSCOPICAL SECTION, 1875.

In presenting to this Section the annual Report of the Recorder, I am gratified to be able to make it a mere record of scientific research actually accomplished; and believe we have ample cause for mutual felicitation in the fact, that no single meeting throughout the year has passed without its written or oral communication, illustrated in every instance save one by specimens of microscopic work.

At the first meeting in 1875, Dr. J. G. Hunt made a very interesting communication upon the subject of Amplifiers for the microscope, giving a history of the apparatus, and demonstrating the mode of employment and special advantages. At the February meeting, Dr. J. C. Morris read his elaborate report upon $\frac{1}{25}$ and $\frac{1}{50}$ objectives, full abstracts of which have been since reprinted in the "Cincinnati Medical News," and in the "London Monthly Microscopical Journal." In March an instructive article on "The misinterpretation of appearances under the microscope," by Mr. Charles Stodder, of Boston, Mass., a correspondent of the Section, was read and afterwards appeared in the columns of the "Phila. Medical Times." At the next meeting, Dr. Carl Seiler produced an important paper on the "Photographic enlargement of microscopic objects," illustrated by numerous photographs taken with an ingenious camera of his own construction, which he also displayed. In May, an exhaustive article on the "Physiological action of hemlock and its alkaloids," was presented by Dr. H. C. Wood, for B. F. Lautenbach, M.D.; and Dr. J. G. Hunt exhibited some of his exquisite preparations, of injected intestinal villi of the rabbit, and Pacinian bodies from the mesentery of the cat, giving minute directions for following his method of manipulation. At the first meeting after the summer vacation, Dr. Hunt showed some sections from the branch of a pear tree affected with "black rot" or "fire blight" which gave

rise to a discussion on parasitic disease; in November, Dr. Richardson read a paper on "Improved method of applying the micro-spectroscopic test for blood stains," demonstrating its application to a spot of blood only $\frac{1}{100}$ of an inch in diameter; and our present December gathering is marked by the valuable article of Dr. Carl Seiler on "Microscopic Photography with High powers," to which we have just listened with so much interest.

The greatest triumph of the year was of course the Annual Exhibition of microscopes, microscopic specimens, and apparatus, which was given in the Hall of the Academy on the 4th of October last. Under the chairmanship of Dr. J. L. LeConte, this display was eminently successful, and, being witnessed and appreciated by a large audience of ladies and gentlemen, has doubtless in some measure contributed to raise our parent Academy in popular estimation. Indeed, I think that the obvious illustrations under our microscopes at these Exhibitions, of every day uses to which science is applied, constitute valuable means of convincing the community at large that our labors, our objects, and our aims in the study of the natural sciences, are practical and utilitarian; instead of being, as too many still believe, chiefly theoretical and speculative.

All of which is respectfully submitted.

JOS. G. RICHARDSON, *Recorder*.

REPORT OF THE RECORDER OF THE CONCHOLOGICAL SECTION.

The Recorder of the Conchological Section reports that during the year ending Dec. 21st, a number of donations to the museum have been received, all of which have been labelled and arranged. For list of these see the Report of the Curators of the Academy of Natural Sciences. The marine shells of the Swift Collection, which had been placed with Dr. O. A. L. Mörch, of Copenhagen, for identification, have also been received, but, as there was no room for them in the cases, they have not been unpacked. All the alcoholic specimens of mollusks have been relabelled.

For numerous additions to the Library see report of the Librarian of the Academy.

During the year papers have been accepted and published in the Proceedings of the Academy aggregating 120 pages text and 24 plates, as follows :—

Wm. G. Binney,	114	pages	text	and	21	plates.
James Lewis,	4	"	"	"	1	plate.
T. A. Conrad,	1	page	"	"	1	"
Wm. M. Gabb,	1	"	"	"	1	"

By a resolution adopted at a special meeting of the Section held April 27, last, three thousand dollars were subscribed to the building-fund of the Academy, and this amount has been paid to its Treasurer; and by another resolution, adopted at the last meeting of the year, the sum of \$500 was appropriated towards defraying expenses for shell cases in the new museum building.

The officers of the Section for 1876 are as follows :—

<i>Director</i>	.	.	.	.	W. S. W. Ruschenberger, M.D.
<i>Vice-Director</i>	.	.	.	.	Geo. W. Tryon, Jr.
<i>Recorder</i>	.	.	.	.	S. Raymond Roberts.
<i>Secretary</i>	.	.	.	.	Rev. E. R. Beadle.
<i>Librarian and Conservator</i>	.	.	.	.	Edw. J. Nolan, M.D.

Respectfully submitted by

S. R. ROBERTS, *Recorder*.

The election of Officers for 1876 was held in accordance with the By-laws, with the following result :—

<i>President</i>	.	.	.	W. S. W. Ruschenberger, M.D.
<i>Vice-Presidents</i>	.	.	.	Wm. S. Vaux, J. L. Le Conte, M.D.
<i>Recording Secretary</i>	.	.	.	Edward J. Nolan, M.D.
<i>Corresponding Secretary</i>	.	.	.	Edward D. Cope.
<i>Treasurer</i>	.	.	.	Wm. C. Henszey.
<i>Librarian</i>	.	.	.	Edward J. Nolan, M.D.
<i>Cu'ators</i>	.	.	.	Jos. Leidy, M.D., Wm. S. Vaux, Geo. W. Tryon, Jr., Chas. F. Parker.

<i>Publication Committee</i>	Jos. Leidy, M.D., Wm. S. Vaux, Geo. W. Tryon, Jr., W. S. W. Ruschenberger, M.D., Geo. H. Horn, M.D.
<i>Council</i>	R. S. Kenderdine, M.D., Edw. S. Whelen, Robt. Bridges, M.D., Geo. H. Horn, M.D.
<i>Finance Committee.</i>	Aubrey H. Smith, Wm. S. Vaux, Robt. Bridges, M.D.

ELECTIONS DURING 1875.

MEMBERS.

January 26.—J. M. Patterson, Dr. Alex. Muckle, Wm. V. McKean, Nicholas Lennig, Chas. A. Young, H. J. Fagen.

February 23.—J. Towers Pennypacker, Peter F. Rothermel, Chas. E. Hall.

March 30.—Mrs. Caroline G. Taitt, Miss Rebecca Gibson, Jacob P. Jones, James S. Mason, Geo. Cochrane, U. S. N., Wm. H. Castle.

April 27.—Ellicott Fisher, J. S. Alexander.

May 25.—John M. McGrath, M.D., J. Warner Edwards, F. Odin Horstman, Wm. G. Platt, Miss Mary Jeanes, Miss Anna T. Jeanes, Wm. Williamson, M.B., Charles Sumner Williamson.

June 29.—Isaac Hinckley.

July 27.—Howard A. Kelly, George Milliken, Jas. B. England.

August 31.—Wm. Wallace Goodwin, Adolph W. Miller, M.D., Rev. H. C. McCook.

September 28.—Samuel G. Lewis, Eugene Santee, M.D., Stephen Greene.

October 16.—William M. Davis, Jr., B. F. Stephenson, M.D., U. S. N.

November 30.—J. B. Knight, Elliston P. Morris, R. Shelmerdine McCombs, M.D., John C. Boyd, M.D., U. S. N., Eli K. Price.

December 28.—Wm. Stevenson, Beulah M. Rhoads, George Wood, H. C. Humphrey, Joseph H. Roach.

CORRESPONDENTS.

April 27.—Col. T. M. Bryan, of Vincenttown, N. J.

May 25.—Dr. John Belisario, of Sydney, N. S. W.

June 29.—Prof. Luigi Bombecci Porta, of Bologna; Prof. Paolo Mantovani, of Rome.

October 26.—Prof. Karl A. Zittel, of Munich; Prof. Wilhelm C. H. Peters, of Berlin.

November 30.—Prof. William Henry Flower, F.R.S., of London, Dr. Albert Günther, of London; Prof. St. George Mivart, F.R.S., of London; N. S. Maskelyne, F.R.S., of London; Prof. George Rolleston, F.R.S., of Oxford, England.

CORRESPONDENCE OF THE ACADEMY.

For 1875.

January.—N. N. Bruyn, with proposals for exchange of specimens.

Le Secrétaire-Archiviste de la Société d'Agriculture, d'Histoire Naturelle et des Arts utiles de Lyons, acknowledging receipt of publications.

G. M. Barnes, on behalf of the San Diego, Cal., Society of Natural History.

February.—Die Naturforschende Gesellschaft in Berne, acknowledging receipt of publications.

Miss M. C. Montfort, desiring exchange of specimens.

Die Schweizerische Gesellschaft für die gesammten Naturwissenschaften, Bern, acknowledging receipt of, and transmitting publications.

University of the State of New York;

Die Naturforschende Gesellschaft in Zürich; Société des Sciences Naturelles de Neuchatel; severally acknowledging receipt of publications.

Gesellschaft zur Beförderung der gesammten naturwissenschaften in Marburg;

Die Kaiserliche Akademie der Wissenschaften, Wien;

La Société des Sciences de Finlands; all transmitting publications.

March.—F. H. Pipes, with information in regard to a mastodon.

Alex. Wilcocks, acknowledging receipt of notice of election as member of a committee.

A. J. Siler, acknowledging election as correspondent.

Dr. F. Fayrer, acknowledging receipt of notice of election as correspondent.

Literary and Philosophical Society of Liverpool;

Bergens Museum, Norway;

Linnean Society, London; severally acknowledging receipt of publications.

April.—J. L. Lyons, in regard to a rattlesnake.

W. W. Hollenbush, acknowledging receipt of notice of election as correspondent.

Directeur du Jardin Impérial de Botanique, St. Petersburg, with publications.

Die Gessellschaft der naturforschende Freunde zu Berlin;

Nassauischen Vereins für Naturkunde, Wiesbaden;

Buffalo Society of Natural Sciences;

Lyceum of Natural History of New York;

Smithsonian Institution, Washington;

Essex Institute, Salem; severally acknowledging receipt of publications.

May.—J. W. Dawson, in regard to publications.

Prof. F. V. Hayden, in relation to publications of Geological Survey of the Territories.

Col. T. M. Bryan and M. C. Cook, severally acknowledging receipt of notice of election as correspondents.

Asiatic Society of Japan, with publications.

Königl. Böhmische Gesellschaft der Wissenschaften in Prag;

Die Naturforschende Gesellschaft in Danzig;

Yale College; severally acknowledging receipt of publications.

A. T. Goshorn, Director of the Centennial Commission, inclosing letter from Thos. J. Wright.

June.—J. K. Hoyt, in relation to *Helminthophaga Lawrencii*, Herr.

Cyrus Thomas, in relation to price of Proceedings.

Wm. M. Wilson, with resignation.

Leeds Philosophical and Literary Society;

Royal Geographical Society of London; severally acknowledging receipt of publications.

Det Kongelige norske Videnskabers-Selskab i Thronhjelm;

Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique;

Die Kaiserliche Akademie der Wissenschaften zu Wien; severally acknowledging receipt of, and accompanying publications.

K. k. zoologisch-botanische Gesellschaft, Wien;

Die Pollichia; severally with publications.

A. Moret, from La Ronce, France, with reference to a prize essay on Moral and Political Science.

July.—P. P. Carpenter, in relation to facilities for study of the Chitonidæ.

Der Verein für Naturw. Unterhaltung im Hamburg, with publications.

Boston Society of Natural History;

Literary and Philosophical Society of Liverpool;

Essex Institute, Salem;

Smithsonian Institution, Washington;

Royal Society of Tasmania; severally acknowledging receipt of publications.

August.—G. Moret, in explanation of prize essay.

C. W. Irish, accompanying a piece of the Iowa meteorite.

Edw. Berthoud, with essay.

Statistical Society of London, acknowledging receipt of publications.

September.—Linnean Society, London, acknowledging receipt of publications.

Masonic Academy, Milton, Florida, desiring publications.

Messrs. Porter and Coates, Philadelphia, requesting information about the Academy.

October.—Belfast Naturalists' Field Club, with publications.

Benj. V. Marsh, with donations to museum.

November.—Wm. S. Schofield, with request for title conferred on members.

Saturday Evening Post, with request for cut of new building.

University Library, Cambridge;

Leeds Philosophical and Literary Society; severally acknowledging receipt of publications.

Die Naturforschende Gesellschaft zu Halle;

Der Zoologisch-Mineralogische Verein zu Regensburg; severally with publications.

December.—K. Zittel, of Munich, and

W. Peters, acknowledging election as correspondent of the Academy.

Società Adriatica di Scienze Naturali in Trieste;

Königliche Universitäts Bibliothek zu Wurtzburg;

K. Universitäts und Landes-Bibliothek, Strassburg;

Smithsonian Institution, Washington;

Société Hollandaise des Sciences à Harlem;

Yale College, New Haven; severally acknowledging receipt of publications.

Die Bibliothek der k. Bayerischen Akademie der Wissenschaften, München, acknowledging receipt of, and transmitting publications.

Directeur du Jardin Imperial de Botanique, St. Petersburg;

L'Inst. Royale Meteorologique des Pays-bas à Utrecht;

K. Universitätsbibliothek, Wurtzburg;

Dorpater Natur. Gesellschaft; severally with publications.

Which is respectfully submitted by

E. D. COPE,

Corresponding Secretary.

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